Prog 1:

```sql
use internal ;
CREATE TABLE PUBLISHER
(NAME VARCHAR (20) PRIMARY KEY,
PHONE VARCHAR(15),
ADDRESS VARCHAR (20));

CREATE TABLE BOOK (
    BOOK_ID INT PRIMARY KEY,
    TITLE VARCHAR(20),
    PUB_YEAR VARCHAR(20),
    PUBLISHER_NAME VARCHAR(100),
    FOREIGN KEY (PUBLISHER_NAME) REFERENCES PUBLISHER(NAME) ON DELETE
CASCADE
);


CREATE TABLE BOOK_AUTHORS (
    AUTHOR_NAME VARCHAR(20),
    BOOK_ID INT,
    PRIMARY KEY (BOOK_ID, AUTHOR_NAME),
    FOREIGN KEY (BOOK_ID) REFERENCES BOOK(BOOK_ID) ON DELETE CASCADE
);

CREATE TABLE LIBRARY_BRANCH(
BRANCH_ID INT PRIMARY KEY,
BRANCH_NAME VARCHAR(50),
ADDRESS VARCHAR(50));

CREATE TABLE BOOK_COPIES(
BOOK_ID INT,
BRANCH_ID INT, NO_OF_COPIES INT,
FOREIGN KEY (BOOK_ID) REFERENCES BOOK(BOOK_ID) ON DELETE CASCADE,
FOREIGN KEY (BRANCH_ID) REFERENCES LIBRARY_BRANCH(BRANCH_ID) ON DELETE
CASCADE,
PRIMARY KEY(BOOK_ID,BRANCH_ID));

CREATE TABLE CARD(
CARD_NO INT PRIMARY KEY);

CREATE TABLE BOOK_LENDING(
BOOK_ID INT,
BRANCH_ID INT,
CARD_NO INT,
DATE_OUT DATE,
DUE_DATE DATE,
FOREIGN KEY (BOOK_ID) REFERENCES BOOK(BOOK_ID) ON DELETE CASCADE,
FOREIGN KEY (BRANCH_ID) REFERENCES LIBRARY_BRANCH(BRANCH_ID) ON DELETE
CASCADE,
FOREIGN KEY (CARD_NO) REFERENCES CARD(CARD_NO) ON DELETE CASCADE,
PRIMARY KEY (BOOK_ID,BRANCH_ID,CARD_NO));

-- INSERT INTO PUBLISHER
INSERT INTO PUBLISHER VALUES ('MCGRAW-HILL', 9989076587, 'BANGALORE');
INSERT INTO PUBLISHER VALUES ('PEARSON', 9889076565, 'NEW DELHI');
INSERT INTO PUBLISHER VALUES ('RANDOM HOUSE', 7455679345, 'HYDERABAD');
INSERT INTO PUBLISHER VALUES ('HACHETTE LIVRE', 8970862340, 'CHENNAI');
INSERT INTO PUBLISHER VALUES ('GRUPO PLANETA', 7756120238, 'BANGALORE');
```

```sql
-- INSERT INTO BOOK
INSERT INTO BOOK VALUES (1, 'DBMS', 'JAN-2017', 'MCGRAW-HILL');
INSERT INTO BOOK VALUES (2, 'ADBMS', 'JUN-2016', 'MCGRAW-HILL');
INSERT INTO BOOK VALUES (3, 'CN', 'SEP-2016', 'PEARSON');
INSERT INTO BOOK VALUES (4, 'CG', 'SEP-2015', 'GRUPO PLANETA');
INSERT INTO BOOK VALUES (5, 'OS', 'MAY-2016', 'PEARSON');

-- INSERT INTO BOOK_AUTHORS
INSERT INTO BOOK_AUTHORS VALUES ('NAVATHE', 1);
INSERT INTO BOOK_AUTHORS VALUES ('NAVATHE', 2);
INSERT INTO BOOK_AUTHORS VALUES ('TANENBAUM', 3);
INSERT INTO BOOK_AUTHORS VALUES ('EDWARD ANGEL', 4);
INSERT INTO BOOK_AUTHORS VALUES ('GALVIN', 5);

-- INSERT INTO LIBRARY_BRANCH
INSERT INTO LIBRARY_BRANCH VALUES (10, 'RR NAGAR', 'BANGALORE');
INSERT INTO LIBRARY_BRANCH VALUES (11, 'RNSIT', 'BANGALORE');
INSERT INTO LIBRARY_BRANCH VALUES (12, 'RAJAJI NAGAR', 'BANGALORE');
INSERT INTO LIBRARY_BRANCH VALUES (13, 'NITTE', 'MANGALORE');
INSERT INTO LIBRARY_BRANCH VALUES (14, 'MANIPAL', 'UDUPI');

-- INSERT INTO BOOK_COPIES
INSERT INTO BOOK_COPIES VALUES ( 1, 11,5);
INSERT INTO BOOK_COPIES VALUES ( 2, 12,2);
INSERT INTO BOOK_COPIES VALUES ( 2, 13,5);
INSERT INTO BOOK_COPIES VALUES ( 3, 14,7);
INSERT INTO BOOK_COPIES VALUES ( 5, 10,1);
INSERT INTO BOOK_COPIES VALUES ( 4, 11,3);

-- INSERT INTO CARD
INSERT INTO CARD VALUES (100);
INSERT INTO CARD VALUES (101);
INSERT INTO CARD VALUES (102);
INSERT INTO CARD VALUES (103);
INSERT INTO CARD VALUES (104);

INSERT INTO BOOK_LENDING VALUES (1, 10, 101,'2017-01-01', '2017-06-01');
INSERT INTO BOOK_LENDING VALUES (3, 14, 101, '2017-01-11', '2017-03-11');
INSERT INTO BOOK_LENDING VALUES (2, 13, 101, '2017-02-21', '2017-04-21');
INSERT INTO BOOK_LENDING VALUES (4, 11, 101, '2017-03-15', '2017-07-15');
INSERT INTO BOOK_LENDING VALUES (1, 11, 104, '2017-04-12', '2017-05-12');
```

Q1:
```sql
SELECT
B.BOOK_ID,B.TITLE,B.PUBLISHER_NAME,A.AUTHOR_NAME,C.NO_OF_COPIES,L.BRANCH_ID
FROM BOOK B,BOOK_AUTHORS A, BOOK_COPIES C,LIBRARY_BRANCH L
WHERE B.BOOK_ID=A.BOOK_ID
AND B.BOOK_ID=C.BOOK_ID
AND C.BRANCH_ID= L.BRANCH_ID
```

Q2:
```sql
SELECT CARD_NO
FROM BOOK_LENDING
WHERE DATE_OUT BETWEEN '2017-01-01' AND '2017-07-01'
GROUP BY CARD_NO
HAVING COUNT(*) > 3;
```

Q3: DELETE FROM BOOK WHERE BOOK_ID=3;

Q4:CREATE VIEW V_PUBLICATION AS SELECT PUB_YEAR FROM BOOK;

Q5:
CREATE VIEW V_BOOKS AS SELECT
B.BOOK_ID,B.TITLE,C.NO_OF_COPIES FROM BOOK B, BOOK_COPIES C, LIBRARY_BRANCH L
WHERE B.BOOK_ID=C.BOOK_ID
AND L.BRANCH_ID=C.BRANCH_ID;